

SEQUENCE LISTING

<110> YOCUM, R. ROGERS
WILLIAMS, MARK K.
PERO, JANICE G.

<120> METHODS AND ORGANISMS FOR PRODUCTION OF B6 VITAMERS

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<141> 2004-09-22

<150> PCT/US03/008880

<151> 2003-03-21

<150> 60/451,824

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<150> 60/368,618

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<150> 60/367,863

<151> 2002-03-25

<150> 60/367,089

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<170> PatentIn Ver. 3.3

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: plasmid - pDX14R

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<210> 9
<211> 194
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial Promoter

<400> 9
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gcaaccccg c 194

<210> 10
<211> 163
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial Promoter

<400> 10
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atctacaagg tgtggtataa taatcttaac aacagcagga cgc 163

<210> 11
<211> 127
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial Promoter

<400> 11
gaggaatcat agaattttgt caaaataatt ttattgacaa cgtcttatta acgttgatat 60
aatttaaatt ttatttgaca aaaatgggct cgtgtgttac aataaatgta gtgaggtgga 120
tgcaatg 127

<210> 12
<211> 42
<212> DNA
<213> Bacillus subtilis

<400> 12
gaaatcatat aactatacct tgattagggg gaccaagaaa tg 42

<210> 13
<211> 42
<212> DNA
<213> Bacillus subtilis

<400> 13
 caagaacgcg gctggtaaga acataggagc gctgctgaca tg 42

 <210> 14
 <211> 16
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Artificial ribosome
 binding site

 <400> 14
 tctagaaagg aggtga 16

 <210> 15
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Artificial ribosome
 binding site

 <400> 15
 tctagaagga ggagaaaaca tg 22

 <210> 16
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Artificial ribosome
 binding site

 <400> 16
 tctagaggag gagaaaacat g 21

 <210> 17
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Artificial ribosome
 binding site

 <400> 17
 taagaacaaa ggaggagagc tgacatg 27

 <210> 18
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial ribosome binding site

<400> 18

taagaacaga ggaggagagc tgacatg

27

<210> 19

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial ribosome binding site

<400> 19

taagaagaaa ggaggtgagc tgacatg

27

<210> 20

<211> 1282

<212> DNA

<213> Bacillus subtilis

<400> 20

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tgcatatgaa	ttattggatt	tctaggatac	aataaggatt	agaaatcata	taactatacc	180
ttgattaggg	ggaccaagaa	atggctcaaa	caggctactga	acgtgtaaaa	cgcggaatgg	240
cagaaatgca	aaaaggcggc	gtcatcatgg	acgtcatcaa	tgcggaacaa	gcgaaaatcg	300
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cagttagaga	gcacatccat	gcgattgaag	catgcggcgc	ggctgggtctt	gtcgtaaaac	1200
gtccggagca	gctgaacgaa	gttgacgggt	tgattttgcc	gggcgggtgag	agcacgacga	1260
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<210> 21

<211> 293

<212> PRT

<213> Bacillus subtilis

[illegible]

<210> 22
 <211> 988
 <212> DNA
 <213> *Bacillus subtilis*

<400> 22
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 aagggtattga aatctcaaac ttacttcag aacagcgat gcaagaacgc ggctggtaag 180
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 gtttgatcga tacgtatcaa ttcattggag cgcttcgtga attcgctgct cagggcaaac 420
 cgatgtttgg aacatgtgcc ggattaatta tattagcaaa agaaattgcc ggttcagata 480
 atcctcattt aggtcttctg aatgtgggtg tagaacgtaa ttcatttggc cggcaggttg 540
 acagctttga agctgattta acaattaaag gcttggacga gccttttact ggggtattca 600
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 ggtgcgaatc ggtgaaagat gctgtctgaa tccatccttg agcgaaatgc tgaagcgagt 960
 aggcatttac gggataaccg ttatgttt 988

<210> 23
 <211> 196
 <212> PRT
 <213> *Bacillus subtilis*

<400> 23
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 Ile His Ala Ile Glu Ala Cys Gly Ala Ala Gly Leu Val Val Lys Arg
 20 25 30
 Pro Glu Gln Leu Asn Glu Val Asp Gly Leu Ile Leu Pro Gly Gly Glu
 35 40 45
 Ser Thr Thr Met Arg Arg Leu Ile Asp Thr Tyr Gln Phe Met Glu Pro
 50 55 60
 Leu Arg Glu Phe Ala Ala Gln Gly Lys Pro Met Phe Gly Thr Cys Ala
 65 70 75 80
 Gly Leu Ile Ile Leu Ala Lys Glu Ile Ala Gly Ser Asp Asn Pro His
 85 90 95
 Leu Gly Leu Leu Asn Val Val Val Glu Arg Asn Ser Phe Gly Arg Gln
 100 105 110
 Val Asp Ser Phe Glu Ala Asp Leu Thr Ile Lys Gly Leu Asp Glu Pro
 115 120 125

Phe Thr Gly Val Phe Ile Arg Ala Pro His Ile Leu Glu Ala Gly Glu
 130 135 140
 Asn Val Glu Val Leu Ser Glu His Asn Gly Arg Ile Val Ala Ala Lys
 145 150 155 160
 Gln Gly Gln Phe Leu Gly Cys Ser Phe His Pro Glu Leu Thr Glu Asp
 165 170 175
 His Arg Val Thr Gln Leu Phe Val Glu Met Val Glu Glu Tyr Lys Gln
 180 185 190
 Lys Ala Leu Val
 195

<210> 24
 <211> 990
 <212> DNA
 <213> Escherichia coli

<400> 24
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 cccaactccc ctgcacaacc gcaaactgcg ggcacattaa cgctacttcc tgcgcgcta 240
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 gtgcataaag gcgttattaa cgacgctggc attcctttta ccggtcatac cgagtttttc 420
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 gaagagatag acaccattat tccggtgctc aatgagctgc gggcgcgagg gatgaaactc 720
 aacggggccgc tgcctgccga taccctgttt cagccgaaat atcttgataa cgccgacgcc 780
 gtgctggcga tgtaccacga tcagggtctt cccgtgctaa aataccagggt cttcggggcg 840
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 cttgaactgg cgggacgtgg caaagccgat gtcggcagtt ttattacggc gcttaatctc 960
 gccatcaaaa tgattgttaa caccatga

<210> 25
 <211> 329
 <212> PRT
 <213> Escherichia coli

<400> 25
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 Ile Gly Pro Asp Leu Val Val Gln Leu Ala Gln Arg Glu Trp Pro Val
 20 25 30
 Glu Leu Val Val Cys Ala Asp Ala Thr Leu Leu Thr Asn Arg Ala Ala
 35 40 45

Met Leu Gly Leu Pro Leu Thr Leu Arg Pro Tyr Ser Pro Asn Ser Pro
 50 55 60
 Ala Gln Pro Gln Thr Ala Gly Thr Leu Thr Leu Leu Pro Val Ala Leu
 65 70 75 80
 Arg Ala Pro Val Thr Ala Gly Gln Leu Ala Val Glu Asn Gly His Tyr
 85 90 95
 Val Val Glu Thr Leu Ala Arg Ala Cys Asp Gly Cys Leu Asn Gly Glu
 100 105 110
 Phe Ala Ala Leu Ile Thr Gly Pro Val His Lys Gly Val Ile Asn Asp
 115 120 125
 Ala Gly Ile Pro Phe Thr Gly His Thr Glu Phe Phe Glu Glu Arg Ser
 130 135 140
 Gln Ala Lys Lys Val Val Met Met Leu Ala Thr Glu Glu Leu Arg Val
 145 150 155 160
 Ala Leu Ala Thr Thr His Leu Pro Leu Arg Asp Ile Ala Asp Ala Ile
 165 170 175
 Thr Pro Ala Leu Leu His Glu Val Ile Ala Ile Leu His His Asp Leu
 180 185 190
 Arg Thr Lys Phe Gly Ile Ala Glu Pro Arg Ile Leu Val Cys Gly Leu
 195 200 205
 Asn Pro His Ala Gly Glu Gly Gly His Met Gly Thr Glu Glu Ile Asp
 210 215 220
 Thr Ile Ile Pro Val Leu Asn Glu Leu Arg Ala Gln Gly Met Lys Leu
 225 230 235 240
 Asn Gly Pro Leu Pro Ala Asp Thr Leu Phe Gln Pro Lys Tyr Leu Asp
 245 250 255
 Asn Ala Asp Ala Val Leu Ala Met Tyr His Asp Gln Gly Leu Pro Val
 260 265 270
 Leu Lys Tyr Gln Gly Phe Gly Arg Gly Val Asn Ile Thr Leu Gly Leu
 275 280 285
 Pro Phe Ile Arg Thr Ser Val Asp His Gly Thr Ala Leu Glu Leu Ala
 290 295 300
 Gly Arg Gly Lys Ala Asp Val Gly Ser Phe Ile Thr Ala Leu Asn Leu
 305 310 315 320
 Ala Ile Lys Met Ile Val Asn Thr Gln
 325

<210> 26

<211> 732

<212> DNA

<213> Escherichia coli

<400> 26

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ggcattaccg tgcattttac tgaagatcgc cgtcacatta ctgaccgcga cgtgcgcatac 180
ctgcgtcaga cgctggatac ccgcatgaat ctggagatgg cggtgaccga agagatgctg 240
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atcaaaagctg cggcagaggt tggcgcaccg tttatcgaga tccacaccgg ttgctatgct 480
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aaagccattg ccgccatccc tgagatgcat gaactgaata tcgggtcatgc cattattggt 660
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gcgcgtggct aa 732

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<210> 27

<211> 243

<212> PRT

<213> Escherichia coli

<400> 27

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 20             25             30

Ile Ala Glu Gln Ala Gly Ala Asp Gly Ile Thr Val His Leu Arg Glu
 35             40             45

Asp Arg Arg His Ile Thr Asp Arg Asp Val Arg Ile Leu Arg Gln Thr
 50             55             60

Leu Asp Thr Arg Met Asn Leu Glu Met Ala Val Thr Glu Glu Met Leu
 65             70             75             80

Ala Ile Ala Val Glu Thr Lys Pro His Phe Cys Cys Leu Val Pro Glu
 85             90             95

Lys Arg Gln Glu Val Thr Thr Glu Gly Gly Leu Asp Val Ala Gly Gln
100             105             110

Arg Asp Lys Met Arg Asp Ala Cys Lys Arg Leu Ala Asp Ala Gly Ile
115             120             125

Gln Val Ser Leu Phe Ile Asp Ala Asp Glu Glu Gln Ile Lys Ala Ala
130             135             140

Ala Glu Val Gly Ala Pro Phe Ile Glu Ile His Thr Gly Cys Tyr Ala
145             150             155             160

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[illegible]